

OHIO FARM MACHINERY ECONOMIC COST ESTIMATES FOR 1986*

Revised and Adopted for Ohio
by
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The following information is designed as an aid in estimating farm machinery use costs for 1986. The costs are determined by formula and represent an average cost for a specific piece of machinery. These machinery costs are intended to be average estimates for the agricultural industry.

This year changes were made in the salvage value and repair and maintenance calculations. Salvage value at 10 years of life now ranges from 16 to 30 percent. Repair and maintenance calculations are based on the 1984 AGRICULTURAL ENGINEER'S YEARBOOK and vary from last year's estimate.

There are two types of costs associated with owning and operating a machine: Fixed costs, which are incurred whether or not the machine is used, include depreciation, interest, insurance, housing, and taxes. Operating costs, which occur only when the machine is used, include fuel, lubrication, repairs and labor.

Fixed Costs: Each machine is depreciated for 10 years and investment credit taken at the full 10 percent rate. It is assumed that a piece of equipment purchased new will be used commercially for 10 years even though it may be owned by several people.

List price, as shown in this publication, averages the list prices quoted by major machinery companies and reflects a 6 to 8 percent purchaser discount assuming that the purchasing power of the buyer exactly equals set up charges and transportation costs. This year, according to a survey of county agents, new farm machinery can be purchased with a further 15 percent discount off list price. Ownership costs, therefore, are reduced a total of 21 to 23 percent from the original asking price. Interest and insurance rates are assumed to be 12.5 percent and .75 percent, respectively. Housing cost is assumed to be 75 cents per square foot of shelter space needed per year. There are no property taxes on farm machinery in Ohio.

Formulas used to compute fixed machinery costs:

| | | | | |
|-----------------------|---|---|---|---------------------|
| Depreciation per year | = | $\frac{\text{purchase price} - \text{investment credit} - \text{salvage value}}{\text{years you will use machine}}$ | x | .65 |
| Interest per year | = | $\frac{\text{purchase price} + \text{salvage value}}{2}$ | x | interest rate x .85 |
| Insurance per year | = | $\frac{\text{purchase price} + \text{salvage value}}{2}$ | x | rate x .85 |
| Housing per year | = | price per square foot x square feet shelter space required | | |
| Taxes per year | = | 0 (no taxes on personal property in Ohio) | | |

Operating Costs Fuel cost is calculated by multiplying the fuel consumption by the price of fuel, with fuel consumption assumed to be .06

gallons of diesel fuel per horsepower hour. The price of fuel is assumed to be \$1.00 per gallon for diesel. All power units, tractors, combines, trucks, etc., are assumed to be diesel powered. An estimate of gasoline consumption can be made by multiplying the diesel fuel consumption by a factor of 1.36. Lubrication cost is assumed to be 10 percent of fuel cost.

The formulas for estimating the repair and maintenance costs estimate total accumulated repair costs according to the accumulated hours of use; the total costs are then broken down to a per hour cost estimate. The amount of annual use of a machine is an estimate of the number of hours a commercial farmer would use that particular machine in one year.

Labor is assumed to be an hourly wage rate, which includes 30 percent of benefits, of \$5.20 per hour for unskilled labor and \$8.20 per hour for skilled labor. Labor per acre for an operation such as plowing and disking is calculated by using the work rate on the implement instead of the tractor. Therefore, plows, and disks using the same tractor have different per acre labor requirements. Less labor per acre is used in a disking operation that covers more acres per hour than in a plowing operation.

Minimum tillage planters have been included, reflecting the current interest in minimum or reduced tillage practices.

Machinery prices remained about the same for 1986, compared with 1985, with slight price increases in some types of machinery and price declines in others. The following table compares the machinery function costs per acre for four selected items from 1983 to 1986.

| Machine function | 1983 | 1984 | 1985 | 1986 |
|---------------------|---------|---------|---------|---------|
| plow 6-16 | \$14.24 | \$13.72 | \$14.47 | \$12.48 |
| corn planter 6-30 | 10.89 | 10.57 | 10.23 | 9.12 |
| combine small grain | 18.57 | 19.66 | 20.56 | 18.51 |
| combine corn 6-30 | 29.47 | 30.34 | 30.42 | 27.42 |

These cost estimates are not everyone's cost, but are intended as a guide in planning the cropping operation. Individuals have unique costs because of differences in buying power, repair programs, average annual use, and overall replacement programs.

The following tables provide the 1986 machinery function costs broken down into several categories. Some relevant supporting data also are included

TILLAGE EQUIPMENT

| MACHINE | TRACTOR HP | LIST PRICE | ESTIMATED ACRES/HR | ANNUAL ACRES USE | TOTAL COST/ ACRE | TOTAL COST/ HOUR | CASH COST/ ACRE | PER ACRE COST | | | DIESEL FUEL GAL/ACRE |
|---------------------|---------------|---------------|-----------------------|---------------------|------------------------|------------------------|-----------------------|---------------|-----------|-------|----------------------------|
| | | | | | | | | TRACTOR | IMPLEMENT | LABOR | |
| MB PLOW 2-16 | 40 | 1633.00 | 1.16 | 139.29 | 13.23 | 15.35 | 3.76 | 6.39 | 2.27 | 4.57 | 2.07 |
| MB PLOW 3-16 | 60 | 2621.00 | 1.75 | 209.45 | 11.37 | 19.85 | 3.71 | 5.90 | 2.43 | 3.04 | 2.06 |
| MB PLOW 4-16 | 75 | 7845.00 | 2.33 | 279.10 | 13.49 | 31.38 | 4.52 | 5.86 | 5.36 | 2.28 | 1.93 |
| MB PLOW 5-16 | 100 | 9153.00 | 2.91 | 348.74 | 13.48 | 39.17 | 4.82 | 6.64 | 5.02 | 1.83 | 2.06 |
| MB PLOW 6-16 | 120 | 10688.00 | 3.49 | 453.82 | 12.48 | 43.57 | 4.78 | 6.23 | 4.73 | 1.52 | 2.06 |
| MB PLOW 7-16 | 140 | 12787.00 | 4.07 | 529.27 | 12.23 | 49.79 | 4.79 | 6.09 | 4.84 | 1.30 | 2.06 |
| MB PLOW 8-16 | 160 | 17254.00 | 4.65 | 604.71 | 12.64 | 58.81 | 5.14 | 5.81 | 5.69 | 1.14 | 2.06 |
| MB PLOW 9-18 | 225 | 19819.00 | 5.89 | 883.64 | 12.55 | 73.95 | 5.22 | 6.73 | 4.93 | .90 | 2.29 |
| MB PLOW 10-18 | 225 | 21480.00 | 6.55 | 981.82 | 11.67 | 76.38 | 4.85 | 6.05 | 4.80 | .81 | 2.06 |
| MB PLOW 12-18 | 275 | 24121.00 | 7.85 | 1178.18 | 11.56 | 90.82 | 4.82 | 6.39 | 4.50 | .68 | 2.10 |
| CHISEL PLOW 10 FT | 75 | 3014.00 | 4.36 | 436.36 | 5.63 | 24.58 | 1.78 | 3.12 | 1.30 | 1.22 | 1.03 |
| CHISEL PLOW 15 FT | 120 | 4501.00 | 6.55 | 654.55 | 5.39 | 35.26 | 1.95 | 3.32 | 1.23 | .81 | 1.10 |
| CHISEL PLOW 17 FT | 140 | 4899.00 | 7.42 | 741.82 | 5.26 | 39.05 | 1.97 | 3.34 | 1.21 | .71 | 1.13 |
| CHISEL PLOW 20 FT | 160 | 6685.00 | 8.73 | 872.73 | 5.09 | 44.40 | 1.98 | 3.10 | 1.38 | .61 | 1.10 |
| CHISEL PLOW WING 24 | 225 | 11497.00 | 10.47 | 1047.27 | 6.17 | 64.62 | 2.23 | 3.78 | 1.88 | .51 | 1.29 |
| CHISEL PLOW WING 29 | 250 | 13278.00 | 12.65 | 1265.45 | 5.88 | 74.36 | 2.10 | 3.67 | 1.79 | .42 | 1.19 |
| CHISEL PLOW WING 35 | 300 | 14077.00 | 15.27 | 1527.27 | 5.41 | 82.68 | 2.01 | 3.50 | 1.57 | .35 | 1.18 |
| FIELD CULTIVATOR 12 | 75 | 2828.00 | 6.06 | 727.27 | 3.85 | 23.33 | 1.24 | 2.25 | .73 | .88 | .74 |
| FIELD CULTIVATOR 18 | 100 | 3851.00 | 8.73 | 1047.27 | 3.49 | 30.48 | 1.23 | 2.21 | .68 | .61 | .69 |
| FIELD CULTIVATOR 28 | 160 | 9150.00 | 13.58 | 1629.09 | 3.36 | 45.57 | 1.31 | 1.99 | .98 | .39 | .71 |
| FIELD CULTIVATOR 37 | 225 | 11880.00 | 17.94 | 2152.73 | 3.16 | 56.76 | 1.27 | 2.21 | .95 | .01 | .75 |
| FIELD CULTIVATOR 50 | 250 | 20186.00 | 24.24 | 2909.09 | 3.31 | 80.24 | 1.15 | 1.91 | 1.18 | .22 | .62 |
| DISK CHISEL 9 FT | 100 | 6240.00 | 3.82 | 381.82 | 8.91 | 34.01 | 2.77 | 5.05 | 2.47 | 1.39 | 1.57 |
| DISK CHISEL 11 FT | 100 | 7250.00 | 4.91 | 638.18 | 6.83 | 33.53 | 2.24 | 3.93 | 1.82 | 1.08 | 1.22 |
| DISK CHISEL 14 FT | 100 | 8689.00 | 6.00 | 1200.00 | 5.47 | 32.84 | 2.00 | 3.21 | 1.38 | .88 | 1.00 |
| DISK 10 FT | 60 | 4896.00 | 4.85 | 484.85 | 4.77 | 23.12 | 1.25 | 2.13 | 1.55 | 1.09 | .74 |
| DISK 16 FT | 75 | 9923.00 | 7.76 | 775.76 | 4.38 | 33.99 | 1.08 | 1.76 | 1.94 | .68 | .58 |
| DISK 17 FT | 75 | 11366.00 | 8.24 | 824.24 | 4.37 | 35.98 | 1.05 | 1.65 | 2.07 | .64 | .55 |
| DISK 20 FT | 100 | 11987.00 | 9.70 | 969.70 | 4.42 | 42.82 | 1.20 | 1.99 | 1.88 | .55 | .62 |
| DISK 21 FT | 100 | 12500.00 | 10.18 | 1018.18 | 4.27 | 43.47 | 1.15 | 1.89 | 1.85 | .52 | .59 |
| DISK 24 FT | 120 | 16454.00 | 11.64 | 1163.64 | 4.44 | 51.70 | 1.20 | 1.87 | 2.12 | .46 | .62 |
| DISK 28 FT | 140 | 18795.00 | 13.58 | 1357.58 | 4.28 | 58.17 | 1.19 | 1.83 | 2.07 | .39 | .62 |
| DISK 32 FT | 160 | 21788.00 | 15.52 | 1551.52 | 4.17 | 64.77 | 1.21 | 1.74 | 2.09 | .34 | .62 |
| DISK 40 FT | 180 | 30341.00 | 19.39 | 1939.39 | 4.22 | 81.76 | 1.15 | 1.62 | 2.32 | .27 | .58 |
| DISK OFFSET 14 FT | 140 | 9636.00 | 6.11 | 610.91 | 7.34 | 44.82 | 2.37 | 4.06 | 2.41 | .87 | 1.38 |
| DISK OFFSET 16 FT | 160 | 10410.00 | 6.98 | 698.18 | 6.92 | 48.29 | 2.38 | 3.87 | 2.29 | .76 | 1.38 |

| MACHINE | TRACTOR HP | LIST PRICE | ESTIMATED ACRES/HR | ANNUAL ACRES USE | TOTAL COST/ACRE | TOTAL COST/HOUR | CASH COST/ACRE | PER ACRE COST | | | DIESEL FUEL GAL/ACRE |
|---------------------|------------|------------|--------------------|------------------|-----------------|-----------------|----------------|---------------|-----------|-------|----------------------|
| | | | | | | | | TRACTOR | IMPLEMENT | LABOR | |
| OFFSET 18 FT | 180 | 11145.00 | 7.85 | 785.45 | 6.86 | 53.92 | 2.41 | 4.01 | 2.18 | .68 | 1.38 |
| DISK-WING OFFSET 21 | 225 | 13570.00 | 9.16 | 916.36 | 7.14 | 65.44 | 2.34 | 4.32 | 2.24 | .58 | 1.47 |
| DISK-WING OFFSET 23 | 225 | 17745.00 | 10.04 | 1003.64 | 7.13 | 71.52 | 2.21 | 3.95 | 2.65 | .53 | 1.35 |
| LANDPLANE 45-12 FT | 180 | 7500.00 | 6.40 | 480.00 | 8.48 | 54.25 | 2.95 | 4.92 | 2.68 | .88 | 1.69 |
| LANDPLANE 55-14 FT | 225 | 15000.00 | 8.00 | 600.00 | 9.80 | 78.37 | 2.87 | 4.95 | 4.14 | .70 | 1.69 |
| LANDPLANE 70-14 FT | 225 | 16000.00 | 7.47 | 560.00 | 10.86 | 81.09 | 3.11 | 5.31 | 4.80 | .75 | 1.81 |
| SPRINGTOOTH DRAG 30 | 60 | 3491.00 | 16.00 | 480.00 | 2.00 | 32.02 | .36 | .64 | 1.01 | .35 | .22 |
| SPRINGTOOTH DRAG 48 | 75 | 4360.00 | 30.25 | 1058.91 | 1.25 | 37.75 | .25 | .45 | .61 | .19 | .15 |

TRACTORS AND COMBINES (WITHOUT HEADS)

| TRACTOR | HP | LIST PRICE | AVERAGE INVESTMENT | ANNUAL HOURS USE | ANNUAL FIXED COST | FIXED COST/H | ANNUAL VARIABLE COST | VARIABLE COST/HOUR | ANNUAL TOTAL COST | TOTAL COST/HOUR | REPAIR +MAINT. COST/HR | FUEL USE/HOUR |
|-------------|----|------------|--------------------|------------------|-------------------|--------------|----------------------|--------------------|-------------------|-----------------|------------------------|---------------|
| 40 HP | | 15279.00 | 8409.18 | 500.00 | 1930.30 | 3.86 | 1778.37 | 3.56 | 3708.67 | 7.42 | .92 | 2.4 |
| 60 HP | | 20332.00 | 11190.22 | 500.00 | 2562.60 | 5.13 | 2589.96 | 5.18 | 5152.56 | 10.31 | 1.22 | 3.6 |
| 75 HP | | 27837.00 | 15320.79 | 500.00 | 3499.47 | 7.00 | 3310.11 | 6.62 | 6809.58 | 13.62 | 1.67 | 4.5 |
| 100 HP | | 43167.00 | 23758.04 | 550.00 | 5409.71 | 9.84 | 5196.96 | 9.45 | 10606.68 | 19.28 | 2.85 | 6.0 |
| 120 HP | | 47107.00 | 25926.52 | 550.00 | 5900.64 | 10.73 | 6065.98 | 11.03 | 11966.62 | 21.76 | 3.11 | 7.2 |
| 140 HP | | 52802.00 | 29060.90 | 550.00 | 6631.91 | 12.06 | 6998.71 | 12.72 | 13630.62 | 24.78 | 3.48 | 8.4 |
| 160 HP | | 58559.00 | 32229.41 | 600.00 | 7347.79 | 12.25 | 8865.75 | 14.78 | 16213.54 | 27.02 | 4.22 | 9.6 |
| 180 HP | | 69803.00 | 38417.83 | 600.00 | 8745.98 | 14.58 | 10143.49 | 16.91 | 18889.47 | 31.48 | 5.03 | 10.0 |
| 225 HP 4WD | | 82408.00 | 45355.30 | 500.00 | 10329.91 | 20.66 | 9485.20 | 18.97 | 19815.11 | 39.63 | 4.12 | 13.5 |
| 50 HP 4WD | | 99502.00 | 54763.41 | 500.00 | 12455.54 | 24.91 | 10737.55 | 21.48 | 23193.09 | 46.39 | 4.98 | 15.0 |
| 5 HP 4WD | | 106640.00 | 58691.99 | 500.00 | 13343.15 | 26.69 | 11741.00 | 23.48 | 25084.15 | 50.17 | 5.33 | 16.5 |
| 300 HP 4WD | | 111881.00 | 61576.51 | 500.00 | 13994.87 | 27.99 | 12697.02 | 25.39 | 26691.89 | 53.38 | 5.59 | 18.0 |
| 320 HP 4WD | | 112420.00 | 61873.16 | 500.00 | 14061.89 | 28.12 | 13370.50 | 26.74 | 27432.39 | 54.86 | 5.62 | 19.2 |
| 350 HP 4WD | | 144892.00 | 79744.93 | 500.00 | 18099.77 | 36.20 | 15172.30 | 30.34 | 33272.07 | 66.54 | 7.24 | 21.0 |
| SML COMBINE | | 55926.00 | 28260.81 | 300.00 | 7223.44 | 24.08 | 8721.39 | 29.07 | 15944.84 | 53.15 | 22.47 | 6.0 |
| MED COMBINE | | 76194.00 | 38502.73 | 300.00 | 9838.40 | 32.79 | 11560.52 | 38.54 | 21398.92 | 71.33 | 30.62 | 7.0 |
| LRG COMBINE | | 86476.00 | 43698.48 | 300.00 | 11181.23 | 37.27 | 13294.93 | 44.32 | 24476.16 | 81.59 | 34.75 | 8.7 |
| JMB COMBINE | | 102901.00 | 51998.45 | 300.00 | 13300.02 | 44.33 | 16363.82 | 54.55 | 29663.84 | 98.88 | 41.35 | 12.0 |

PLANTING EQUIPMENT

| MACHINE | TRACTOR HP | LIST PRICE | ESTIMATED ACRES/HR | ANNUAL ACRES USE | TOTAL COST/ACRE | TOTAL COST/HOUR | CASH COST/ACRE | PER ACRE COST | | | DIESEL FUEL GAL/ACRE |
|----------------------|------------|------------|--------------------|------------------|-----------------|-----------------|----------------|---------------|-----------|-------|----------------------|
| | | | | | | | | TRACTOR | IMPLEMENT | LABOR | |
| CORN PLANTER 4-36 | 40 | 9283.00 | 4.58 | 320.73 | 8.36 | 38.31 | 1.52 | 1.62 | 4.59 | 2.15 | .52 |
| CORN PLANTER 6-36 | 60 | 16376.00 | 6.87 | 481.09 | 8.27 | 56.87 | 1.62 | 1.50 | 5.34 | 1.43 | .52 |
| CORN PLANTER 6-30 | 60 | 14276.00 | 5.73 | 400.91 | 9.12 | 52.22 | 1.81 | 1.80 | 5.60 | 1.72 | .63 |
| CORN PLANTER 8-30 | 75 | 21384.00 | 7.64 | 534.55 | 9.33 | 71.24 | 1.89 | 1.78 | 6.25 | 1.29 | .59 |
| CORN PLANTER 12-30 | 100 | 32416.00 | 11.45 | 801.82 | 8.86 | 101.54 | 1.86 | 1.68 | 6.32 | .86 | .52 |
| MIN-TIL PLANTER 4-36 | 60 | 11678.00 | 3.56 | 249.45 | 13.03 | 46.44 | 2.65 | 2.89 | 7.37 | 2.77 | 1.01 |
| MIN-TIL PLANTER 6-36 | 75 | 15961.00 | 5.35 | 374.18 | 11.09 | 59.27 | 2.33 | 2.55 | 6.70 | 1.84 | .84 |
| MIN-TIL PLANTER 6-30 | 75 | 15643.00 | 4.45 | 311.82 | 13.14 | 58.53 | 2.77 | 3.06 | 7.87 | 2.21 | 1.01 |
| TIL PLANTER 8-30 | 100 | 22296.00 | 5.94 | 415.76 | 13.29 | 78.91 | 2.96 | 3.25 | 8.38 | 1.66 | 1.01 |
| MIN-TIL PLANTER 8-36 | 100 | 23409.00 | 7.13 | 498.91 | 11.41 | 81.34 | 2.52 | 2.71 | 7.32 | 1.38 | .84 |
| MIN-TIL PLANTER 12-3 | 160 | 33498.00 | 8.91 | 623.64 | 12.50 | 111.36 | 3.03 | 3.03 | 8.36 | 1.11 | 1.08 |
| POTATO FILLER | --- | 7000.00 | 5.75 | 321.75 | 3.25 | 18.69 | .31 | 0 | 3.25 | 0 | .02 |
| POTATO ROW MARKER 4R | 120 | 8560.00 | 4.98 | 214.11 | 11.81 | 58.82 | 2.35 | 4.37 | 5.33 | 2.12 | 1.45 |

| MACHINE | TRACTOR HP | LIST PRICE | ESTIMATED ACRES/HR | ANNUAL ACRES USE | TOTAL COST/ ACRE | TOTAL COST/ HOUR | CASH COST/ ACRE | PER ACRE COST | | | DIESEL FUEL GAL/ACRE |
|----------------------|---------------|---------------|-----------------------|---------------------|------------------------|------------------------|-----------------------|---------------|-----------|-------|----------------------------|
| | | | | | | | | TRACTOR | IMPLEMENT | LABOR | |
| POTATO ROW MARKER 6R | 140 | 13000.00 | 7.47 | 321.17 | 10.13 | 75.63 | 1.84 | 3.32 | 5.40 | 1.41 | 1.12 |
| POTATO PLANTER 4 ROW | 120 | 20000.00 | 3.83 | 214.50 | 23.60 | 90.39 | 4.37 | 5.68 | 13.48 | 4.44 | 1.88 |
| POTATO PLANTER 6 ROW | 140 | 32000.00 | 5.75 | 321.75 | 21.65 | 124.39 | 3.80 | 4.31 | 14.38 | 2.96 | 1.4 |
| BEET PLANTER 12 ROW | 100 | 20000.00 | 4.67 | 280.00 | 17.01 | 79.39 | 3.34 | 4.13 | 10.62 | 2.26 | 1.29 |
| GRAIN DRILL PW 12 FT | 40 | 7986.00 | 4.78 | 382.25 | 7.01 | 33.47 | 1.45 | 1.55 | 3.48 | 1.97 | .50 |
| GRAIN DRILL PW 14 FT | 40 | 8296.00 | 5.57 | 445.96 | 6.12 | 34.14 | 1.27 | 1.33 | 3.10 | 1.69 | .43 |
| GRAIN DRILL PW 16 FT | 60 | 9934.00 | 6.37 | 509.67 | 6.34 | 40.42 | 1.47 | 1.62 | 3.25 | 1.48 | .57 |
| GRAIN DRILL PW 20 FT | 75 | 11907.00 | 7.96 | 637.09 | 6.01 | 47.86 | 1.46 | 1.71 | 3.11 | 1.18 | .57 |
| GRAIN DRILL PW 24 FT | 75 | 14284.00 | 9.56 | 764.51 | 5.53 | 52.80 | 1.32 | 1.43 | 3.11 | .99 | .47 |
| GRAIN DRILL PW 28 FT | 100 | 17180.00 | 11.15 | 891.93 | 5.78 | 64.48 | 1.50 | 1.73 | 3.21 | .85 | .54 |

MAINTENANCE EQUIPMENT

| MACHINE | TRACTOR HP | LIST PRICE | ESTIMATED ACRES/HR | ANNUAL ACRES USE | TOTAL COST/ ACRE | TOTAL COST/ HOUR | CASH COST/ ACRE | PER ACRE COST | | | DIESEL FUEL GAL/ACRE |
|----------------------|---------------|---------------|-----------------------|---------------------|------------------------|------------------------|-----------------------|---------------|-----------|-------|----------------------------|
| | | | | | | | | TRACTOR | IMPLEMENT | LABOR | |
| CULTIVATOR 4-36 | 40 | 2372.00 | 4.65 | 465.45 | 3.58 | 16.66 | .88 | 1.59 | .82 | 1.16 | .52 |
| CULTIVATOR 6-36 | 60 | 3537.00 | 6.98 | 698.18 | 3.07 | 21.42 | .85 | 1.48 | .82 | .77 | .52 |
| CULTIVATOR 6-30 | 60 | 3065.00 | 5.82 | 581.82 | 3.55 | 20.63 | 1.01 | 1.77 | .85 | .93 | .62 |
| CULTIVATOR 8-30 | 75 | 4742.00 | 7.76 | 775.76 | 3.43 | 26.59 | .99 | 1.76 | .97 | .70 | .58 |
| CULTIVATOR 12-30 | 140 | 8934.00 | 11.64 | 1163.64 | 3.78 | 44.03 | 1.26 | 2.13 | 1.19 | .46 | . |
| RIDGE-CULT 4-36 | 75 | 4899.00 | 4.65 | 465.45 | 5.74 | 26.70 | 1.65 | 2.93 | 1.64 | 1.17 | .97 |
| RIDGE-CULT 6-36 | 100 | 7222.00 | 6.98 | 698.18 | 5.15 | 35.97 | 1.58 | 2.76 | 1.61 | .78 | .86 |
| RIDGE-CULT 6-30 | 100 | 6292.00 | 5.82 | 581.82 | 5.92 | 34.44 | 1.86 | 3.31 | 1.68 | .93 | 1.03 |
| RIDGE-CULT 8-36 | 100 | 9360.00 | 9.31 | 930.91 | 4.21 | 39.22 | 1.24 | 2.07 | 1.56 | .59 | .64 |
| RIDGE-CULT 8-30 | 100 | 8126.00 | 7.76 | 775.76 | 4.80 | 37.26 | 1.45 | 2.49 | 1.62 | .70 | .77 |
| RIDGE-CULT 12-30 | 160 | 12563.00 | 12.36 | 1236.36 | 4.25 | 52.57 | 1.42 | 2.19 | 1.56 | .50 | .78 |
| ROTARY HOE 16 | 40 | 2986.00 | 10.86 | 434.42 | 2.18 | 23.70 | .37 | .68 | 1.02 | .48 | .22 |
| POTATO CULT. 4 ROW | 75 | 3500.00 | 6.13 | 888.63 | 3.81 | 23.38 | 1.28 | 2.22 | .71 | .88 | .73 |
| POTATO CULT. 6 ROW | 75 | 5500.00 | 9.19 | 1286.98 | 2.83 | 26.06 | .92 | 1.48 | .76 | .59 | .49 |
| BEET CULT. 12 ROW | 100 | 9000.00 | 6.00 | 360.00 | 7.63 | 45.75 | 1.75 | 3.21 | 3.51 | .90 | 1.00 |
| BEET THINNER 6 ROW | 100 | 16000.00 | 2.10 | 210.00 | 25.04 | 52.58 | 6.18 | 9.18 | 11.64 | 4.21 | 2.86 |
| BEET THINNER 12 ROW | 120 | 30000.00 | 4.20 | 420.00 | 18.10 | 76.01 | 4.20 | 5.18 | 10.81 | 2.10 | 1.71 |
| SPRAYER 30 FT | 40 | 3255.00 | 14.18 | 1134.55 | 1.77 | 25.11 | .34 | .52 | .50 | .75 | .17 |
| SPRAYER 50 FT | 60 | 4733.00 | 23.64 | 2363.64 | 1.25 | 29.58 | .30 | .44 | .37 | .45 | .15 |
| SPRAYER HI PRES 50FT | 60 | 28240.00 | 23.64 | 2363.64 | 2.93 | 69.24 | .71 | .44 | 2.04 | .45 | .15 |
| ANHYDROUS APPLICATOR | 160 | 14338.00 | 12.73 | 509.09 | 7.17 | 91.27 | 1.97 | 2.12 | 4.50 | .54 | . |
| FERTILIZER SPRDR 40 | 60 | 7460.00 | 38.79 | 1163.64 | 1.41 | 54.80 | .26 | .27 | .97 | .18 | .09 |
| SHREDDER 12 FT | 60 | 6250.00 | 4.36 | 436.36 | 5.78 | 25.22 | 1.52 | 2.36 | 2.23 | 1.19 | .83 |

| MACHINE | TRACTOR HP | LIST PRICE | ESTIMATED ACRES/HR | ANNUAL ACRES USE | TOTAL COST/ ACRE | TOTAL COST/ HOUR | CASH COST/ ACRE | PER ACRE COST | | | DIESEL FUEL GAL/ACRE |
|---------------------|---------------|---------------|-----------------------|---------------------|------------------------|------------------------|-----------------------|---------------|-----------|-------|----------------------------|
| | | | | | | | | TRACTOR | IMPLEMENT | LABOR | |
| FOOD TRUCK (USED) | --- | 17500.00 | 1.52 | 606.06 | 13.71 | 20.77 | 6.44 | 0 | 10.27 | 3.43 | 1.65 |
| VY TRUCK (USED) | --- | 28000.00 | 1.52 | 606.06 | 19.94 | 30.21 | 10.43 | 0 | 16.51 | 3.43 | 2.75 |
| LIGHT TRUCK | --- | 13000.00 | 1.52 | 606.06 | 11.17 | 16.92 | 4.89 | 0 | 7.73 | 3.43 | 1.32 |
| MEDIUM TRUCK | --- | 26000.00 | 1.52 | 606.06 | 17.75 | 26.89 | 8.69 | 0 | 14.32 | 3.43 | 1.65 |
| HEAVY TRUCK | --- | 42000.00 | 1.52 | 606.06 | 26.60 | 40.30 | 14.13 | 0 | 23.17 | 3.43 | 2.75 |
| MANURE SPREADER 150 | 75 | 3960.00 | 3.49 | 349.09 | 8.01 | 27.96 | 2.97 | 3.90 | 2.59 | 1.52 | 1.29 |
| MANURE SPREADER 225 | 100 | 6825.00 | 3.49 | 349.09 | 11.48 | 40.07 | 4.56 | 5.52 | 4.44 | 1.52 | 1.72 |
| MANURE SPREADER 400 | 100 | 9270.00 | 4.65 | 465.45 | 9.80 | 45.60 | 3.92 | 4.14 | 4.52 | 1.14 | 1.29 |
| GRAVITY BOX 185 BU | 40 | 1545.00 | 1.65 | 215.09 | 9.24 | 15.30 | 2.54 | 4.48 | 1.62 | 3.14 | 1.45 |
| GRAVITY BOX 240 BU | 40 | 1711.00 | 1.65 | 215.09 | 9.40 | 15.56 | 2.59 | 4.48 | 1.78 | 3.14 | 1.45 |
| HAY WAGON | 40 | 2143.00 | 3.78 | 945.45 | 5.38 | 20.35 | 1.25 | 1.96 | .67 | 2.75 | .63 |
| FORAGE WAGON 14 FT | 40 | 6760.00 | 1.65 | 215.09 | 13.68 | 22.64 | 3.87 | 4.48 | 6.06 | 3.14 | 1.45 |
| FORAGE WAGON 16 FT | 40 | 7303.00 | 1.65 | 215.09 | 14.07 | 23.28 | 4.01 | 4.48 | 6.44 | 3.14 | 1.45 |

HARVESTING EQUIPMENT

| MACHINE | TRACTOR HP | LIST PRICE | ESTIMATED ACRES/HR | ANNUAL ACRES USE | TOTAL COST/ ACRE | TOTAL COST/ HOUR | CASH COST/ ACRE | PER ACRE COST | | | DIESEL FUEL GAL/ACRE |
|---------------------|---------------|---------------|-----------------------|---------------------|------------------------|------------------------|-----------------------|---------------|-----------|-------|----------------------------|
| | | | | | | | | TRACTOR | IMPLEMENT | LABOR | |
| WHER-COND 9 FT | 60 | 9404.00 | 4.09 | 327.27 | 8.22 | 33.63 | 1.79 | 2.52 | 4.30 | 1.40 | .88 |
| SWATHER-COND. 12 FT | --- | 17954.00 | 5.45 | 436.36 | 7.31 | 39.89 | .94 | 0 | 6.36 | .95 | .55 |
| SWATHER-COND. 15 FT | --- | 18585.00 | 6.82 | 545.45 | 6.04 | 41.19 | .76 | 0 | 5.28 | .76 | .44 |
| SWATHER 12 FT | --- | 28635.00 | 5.82 | 465.45 | 9.98 | 58.06 | 1.06 | 0 | 9.09 | .89 | .52 |
| SWATHER 15 FT | --- | 29205.00 | 7.27 | 581.82 | 8.15 | 59.26 | .86 | 0 | 7.43 | .71 | .41 |
| SWATHER 18 FT | --- | 30267.00 | 8.73 | 698.18 | 7.02 | 61.27 | .73 | 0 | 6.43 | .60 | .34 |
| SWATHER 20 FT | --- | 31721.00 | 9.70 | 775.76 | 6.59 | 63.89 | .67 | 0 | 6.05 | .54 | .31 |
| 1 TON STACKER | 60 | 12500.00 | 4.15 | 829.09 | 7.96 | 33.01 | 2.46 | 2.49 | 3.20 | 2.28 | .87 |
| 3 TON STACKER | 75 | 20668.00 | 4.84 | 1064.00 | 9.17 | 44.33 | 3.22 | 2.82 | 4.40 | 1.95 | .93 |
| 6 TON STACKER | 100 | 32473.00 | 5.53 | 1547.64 | 11.03 | 60.95 | 4.79 | 3.49 | 5.83 | 1.71 | 1.09 |
| BALER PTO TWINE | 40 | 12010.00 | 3.78 | 756.36 | 7.84 | 29.66 | 2.21 | 1.96 | 3.39 | 2.49 | .63 |
| ROUND BALER 1500 LB | 60 | 15150.00 | 4.64 | 927.27 | 6.89 | 31.97 | 2.41 | 2.22 | 3.43 | 1.24 | .78 |
| ROUND BALER 1000 LB | 60 | 11562.00 | 3.01 | 602.73 | 9.38 | 28.28 | 3.26 | 3.42 | 4.05 | 1.92 | 1.19 |
| ROTARY MOWER | 40 | 1921.00 | 2.73 | 272.73 | 5.92 | 16.14 | 1.63 | 2.72 | 1.29 | 1.91 | .88 |
| RAKE (HYD) | 40 | 2610.00 | 3.49 | 698.18 | 4.52 | 15.78 | 1.39 | 2.12 | .91 | 1.49 | .69 |
| ORAGE HARV. 1 ROW | 60 | 14530.00 | .95 | 94.55 | 44.46 | 42.04 | 9.01 | 10.90 | 23.58 | 9.98 | 3.81 |
| ORAGE HARV. 2 ROW | 100 | 15986.00 | 1.65 | 165.45 | 32.23 | 53.33 | 7.93 | 11.66 | 14.88 | 5.70 | 3.63 |
| FOR HARV 2 ROW SP | --- | 68970.00 | 2.04 | 305.45 | 43.42 | 88.42 | 9.62 | 0 | 38.79 | 4.63 | 3.63 |
| FOR HAR 3 ROW SP | --- | 80322.00 | 3.05 | 458.18 | 33.18 | 101.36 | 7.43 | 0 | 30.09 | 3.09 | 2.78 |
| FORAGE BLOWER LG | 60 | 3375.00 | 1.00 | 50.00 | 24.75 | 24.75 | 5.63 | 10.31 | 9.24 | 5.20 | 3.60 |

| MACHINE | TRACTOR HP | LIST PRICE | ESTIMATED ACRES/HR | ANNUAL ACRES USE | TOTAL COST/ ACRE | TOTAL COST/ HOUR | CASH COST/ ACRE | PER ACRE COST | | | DIESEL FUEL GAL/AC |
|----------------------|---------------|---------------|-----------------------|---------------------|------------------------|------------------------|-----------------------|---------------|-----------|-------|--------------------------|
| | | | | | | | | TRACTOR | IMPLEMENT | LABOR | |
| CORN PICKER 2-36 | 40 | 18890.00 | 1.42 | 212.73 | 26.63 | 37.77 | 5.67 | 5.23 | 14.75 | 6.65 | 1.69 |
| PICKER-SHELLER 2-ROW | 60 | 16832.00 | 1.49 | 223.36 | 25.80 | 38.41 | 6.16 | 6.92 | 12.54 | 6.34 | 2.42 |
| COMBINE SM GRAIN SML | SML | 6009.00 | 4.10 | 819.39 | 16.62 | 68.08 | 7.47 | 12.97 | 1.34 | 2.30 | 1.46 |
| COMBINE SM GRAIN MED | MED | 7363.00 | 4.73 | 945.45 | 18.51 | 87.50 | 8.55 | 15.09 | 1.43 | 2.00 | 1.52 |
| COMBINE SM GRAIN LGE | LRG | 8352.00 | 6.30 | 1260.61 | 15.65 | 98.67 | 7.37 | 12.94 | 1.21 | 1.50 | 1.38 |
| COMBINE SOYBEANS SML | SML | 8966.00 | 3.58 | 716.97 | 19.74 | 70.76 | 8.75 | 14.83 | 2.28 | 2.63 | 1.67 |
| COMBINE SOYBEANS MED | MED | 9702.00 | 4.14 | 827.27 | 21.66 | 89.60 | 9.92 | 17.24 | 2.14 | 2.28 | 1.74 |
| COMBINE SOYBEANS LGE | LRG | 11144.00 | 4.96 | 992.73 | 20.39 | 101.20 | 9.51 | 16.44 | 2.05 | 1.90 | 1.75 |
| COMBINE CORN 3-30 SM | SML | 8893.00 | 1.77 | 354.55 | 39.88 | 70.69 | 17.69 | 29.98 | 4.57 | 5.32 | 3.38 |
| COMBINE CORN 2-38 SM | SML | 5800.00 | 1.49 | 297.82 | 45.60 | 67.90 | 20.52 | 35.69 | 3.57 | 6.34 | 4.03 |
| COMBINE CORN 3-38 SM | SML | 9736.00 | 2.25 | 449.09 | 31.82 | 71.45 | 14.06 | 23.67 | 3.95 | 4.20 | 2.67 |
| COMBINE CORN 4-36 MD | MED | 13162.00 | 2.84 | 567.27 | 32.70 | 92.75 | 14.78 | 25.15 | 4.22 | 3.33 | 2.54 |
| COMBINE CORN 4-30 MD | MED | 12615.00 | 2.60 | 520.00 | 35.47 | 92.22 | 16.07 | 27.43 | 4.41 | 3.63 | 2.77 |
| COMBINE CORN 6-30 LG | LRG | 17513.00 | 3.90 | 780.00 | 27.42 | 106.94 | 12.52 | 20.92 | 4.08 | 2.42 | 2.23 |
| COMBINE CORN 8-30 LG | LRG | 22767.00 | 4.73 | 945.45 | 23.63 | 111.72 | 10.61 | 17.26 | 4.38 | 2.00 | 1.84 |
| COMBINE CORN 12-30 J | JMB | 35484.00 | 7.09 | 1418.18 | 19.80 | 140.43 | 8.98 | 13.94 | 4.53 | 1.33 | 1.61 |
| POTATO HVSTR SEED 2R | 120 | 42500.00 | 1.49 | 319.68 | 54.65 | 81.63 | 16.25 | 14.57 | 26.04 | 14.04 | 4.82 |
| POTATO HRVSTR. 2 ROW | 120 | 42500.00 | 1.99 | 318.68 | 44.60 | 88.83 | 11.46 | 10.92 | 23.14 | 10.53 | 3.61 |
| ROTARY DISK BEAN CUT | 100 | 6500.00 | 5.20 | 416.00 | 7.80 | 40.58 | 2.03 | 3.71 | 2.28 | 1.81 | 1.15 |
| BEET LIFTER 4 ROW | 100 | 38730.00 | 3.47 | 277.21 | 28.60 | 99.10 | 5.08 | 5.57 | 20.31 | 2.72 | 1.73 |
| BEET LIFTER 6 ROW | 120 | 45828.00 | 5.20 | 416.00 | 22.04 | 114.58 | 3.97 | 4.18 | 16.04 | 1.81 | 1.38 |
| BEET TOPPER 4 ROW | 75 | 14500.00 | 4.26 | 341.18 | 11.36 | 48.45 | 2.21 | 3.19 | 6.17 | 1.99 | 1.06 |
| BEET TOPPER 6 ROW | 100 | 15500.00 | 6.40 | 512.00 | 8.76 | 56.09 | 1.94 | 3.01 | 4.42 | 1.33 | .94 |
| BEET WAGON 8 TON | 75 | 7000.00 | 3.47 | 277.21 | 9.26 | 32.09 | 2.30 | 3.93 | 3.83 | 1.50 | 1.30 |

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